# Renyu (Philip) Zhang

Updated in October 2020

CONTACT Information New York University Shanghai

1555 Century Avenue

 $\verb"renyu.zhang@nyu.edu"$ 

https://rphilipzhang.github.io/rphilipzhang/

Pudong, Shanghai, China, 200122

EDUCATION

Washington University in St. Louis, Olin Business School

St. Louis, MO

Ph.D. Operations Management

05/2016

- Thesis: Dynamic Pricing and Inventory Management: Theory and Applications
- Advisors: Nan Yang, Fuqiang Zhang

Peking University, School of Mathematical Sciences

Beijing, China

B.S. Mathematics

07/2011

ACADEMIC POSITION New York University Shanghai

Shanghai, China

Assistant Professor of Operations Management

09/2016-

NYU Global Network Assistant Professor

07/2017-

New York University, Stern School of Business

New York, NY

Visiting Assistant Professor of Operations Management

06/2017-

NON-ACADEMIC POSITION

Kwai

Economist & Tech Lead

Beijing, China

12/2018-

Research

Interests

Methodologies

Reinforcement learning; optimization; randomized experiment; matching; game theory; mechanism design; econometrics and causal inference.

#### Applications

Online platforms and marketplaces; sharing economy; social networks; recommender systems; advertising; revenue management and pricing; inventory and supply chain management.

#### **Publications**

- 1. Dynamic Pricing and Inventory Management under Inventory-Dependent Demand, *Operations Research*, **62**(5), 2014, 1077-1094 (with Nan Yang).
- 2. Dynamic Pricing and Inventory Management under Fluctuating Procurement Costs, *Manufacturing & Service Operations Management*, **17**(3), 2015, 321-334 (with Guang Xiao and Nan Yang).
- 3. Dynamic Supply Risk Management with Signal-Based Forecast Multi-Sourcing, and Discretionary Selling, *Production and Operations Management*, **26**(7), 2017, 1399-1415 (with Long Gao, Nan Yang, and Ting Luo).
- 4. Trade-in Remanufacturing, Customer Purchasing Behavior, and Government Policy Manufacturing & Service Operations Management, **20**(4), 2018, 601-616 (with Fuqiang Zhang).
  - Finalist award in the POMS College of Supply Chain Management 2015 Best Student Paper Competition

#### Papers under Review

- 5. Competition and Coopetition for Two-sided Platforms (with Maxime Cohen).
  - Honorable Mention in the INFORMS Service Science Best Cluster Paper Award
- 6. Data Aggregation and Demand Prediction (with Maxime Cohen and Kevin Jiao).
  - Finalist in the INFORMS Data Mining Section Best Paper Award
- 7. Personalized Sales Targets with Customer Choices (with Xiaolong Li, Ying Rong, and Huan Zheng).
- 8. Dynamic Pricing and Inventory Management in the Presence of Online Reviews (with Nan Yang).
- 9. Dynamic Competition under Market Size Dynamics: Balancing the Exploitation-Induction Tradeoff (with Nan Yang).
- 10. Competition on Inventory Availability and Price (with Junfei Lei, Yugang Yu, and Fuqiang Zhang).
- 11. Social Nudges Boost Productivity on Online Platforms: Evidence from Field Experiments (with Zhiyu Zeng, Hengchen Dai, Dennis Zhang, Max Shen, Zhiwei Xu, and Heng Zhang).
- 12. Cold Start on Online Advertising Platforms: Data-Driven Algorithms and Field **Experiments** (with Zikun Ye, Dennis Zhang, Heng Zhang, Xin Chen, and Zhiwei Xu).
- 13. Comparative Statics Analysis of Inventory Management Models with Dynamic Pricing (with Nan Yang).

# Works in Progress

- 14. Carpool Services for Ride-sharing Platforms (with Xuan Wang).
- 15. Recommender Systems on Platforms (with Xuan Wang and Dennis J. Zhang).

#### INVITED SEMINARS

Chinese University of Hong Kong Shenzhen, School of Data Science	11/2020
Sun Yat-sen University, Lingnan College	10/2020
National University of Singapore, Institute of Operations Research and Analytics	10/2020
Shanghai Jiaotong University, Antai College of Economics and Management	09/2020
New York University, Stern School of Business	09/2020
Club Bear Online Seminar, Video link	07/2020
University of Illinois at Chicago, College of Business Administration	10/2019
Peking University, Guanghua School of Management	12/2018
Sun Yat-sen University, Lingnan College	12/2018
John Hopkins University, Carey Business School	11/2018
New York University, Stern School of Business	11/2018
Chinese University of Hong Kong, CUHK Business School	01/2018
Sichuan University, School of Business	12/2017
Washington University in St. Louis, Olin Business School	10/2017
Hong Kong Polytechnique University, Faculty of Business	08/2017
City University of Hong Kong, College of Business	08/2017
Hong Kong University of Science and Technology, HKUST Business School	08/2017
New York University, Stern School of Business	06/2017
Singapore Management University, Lee Kong Chian School of Business	04/2017
National University of Singapore, NUS Business School	04/2017
University of Science and Technology of China, School of Management	03/2017
Southeast University, School of Economics and Management	12/2016
Tsinghua University, School of Economics and Management	12/2016

	Changhai Tigatang University Antai Cahaal of Economics and Management	19/2016
	Shanghai Jiaotong University, Antai School of Economics and Management	12/2016
	University of Toronto, Rotman School of Management	11/2016 $09/2016$
	Nanjing University, School of Management and Engineering Southwest University of Finance and Franchica School of Business Administration	09/2016 $07/2016$
	Southwest University of Finance and Economics, School of Business Administration Southwest Jiaotong University, School of Economics and Management	•
		07/2016
	Shanghai University of Finance and Economics, School of Business Administration	02/2016
	New York University Shanghai	02/2016
	University of Texas at Dallas, Jindal School of Management	01/2016
	New York University, Stern School of Business	01/2016
	Chinese University of Hong Kong, SEEM Department	01/2016
	Hong Kong University of Science and Technology, HKUST Business School	01/2016
	Hong Kong University of Science and Technology, IELM Department	01/2016
	Hong Kong Polytechnique University, Faculty of Business	01/2016
	City University of Hong Kong, College of Business	01/2016
Conference Talks	INFORMS Annual Meeting 2020	11/2020
	National Science Foundation of China, PI Meeting	10/2020
	INFORMS Annual Meeting 2019	10/2019
	Data-Driven and Innovative Operations Workshop,	06/2019
	POMS-HK Conference 2019	01/2019
	Young Scholars' Forum on Management Science 2019	01/2019
	INFORMS Annual Meeting 2018	11/2018
	Operations Management under "Internet+" Environment	08/2018
	MSOM Conference 2018	07/2018
	Revenue Management and Pricing Annual Conference 2018	06/2018
	Revenue Management Workshop	05/2018 $05/2018$
	POMS Conference 2018	05/2018 $05/2018$
	POMS-HK Conference 2018	03/2018 $01/2018$
		•
	Young Scholars' Forum on Management Science 2017	12/2017
	INFORMS Annual Meeting 2017	10/2017
	MSOM Conference 2017	06/2017
	POMS-HK Conference 2017	01/2017
	INFORMS Annual Meeting 2016	11/2016
	CSAMSE Annual Conference 2016	07/2016
	Revenue Management and Pricing Annual Conference 2016	06/2016
	POMS Annual Meeting 2016	05/2016
	Decision Science Institute Annual Conference 2015	11/2015
	INFORMS Annual Meeting 2015	11/2015
	MSOM Annual Conference 2015	06/2015
	POMS Annual Meeting 2015	05/2015
	INFORMS Annual Meeting 2014	11/2014
	MSOM Annual Conference 2014	06/2014
	INFORMS Annual Meeting 2013	10/2013
	INFORMS Annual Meeting 2012	10/2012

Honors, Awards, and Grants

1. Finalist, INFORMS Data Mining Section Best Paper Award.

10/2019

2. MSOM Meritorious Service Award 2018, 2019

- 04/2020
- Shanghai Eastern Scholar, Young Scientist Program QD2018053, PI, RMB 200,000/Year.01/2019-12/2021
- 4. National Science Foundation of China, Young Scientist Program 71802133, PI, RMB 180,000. 01/2019-12/2021
- 5. Honorable Mention, INFORMS Service Science Best Cluster Paper Award.
- 6. Shanghai Pujiang Talent Program 17PJC074, PI, RMB 100,000. 09/2017-08/2019
- 7. Finalist Award, POMS College of Supply Chain Management Best Student Paper Competition. 05/2015
- 8. First Prize Award, Chinese Mathematics Olympiad

10/2006

10/2017

## TEACHING EXPERIENCES

#### New York University Shanghai

#### Instructor

• Business Analytics	Spring 2021
• Machine Learning for Business (Rating: 4.8/5)	Fall 2020
• Business Analytics (Rating: 4.2/5, 4.8/5)	Spring 2019
• Operations Management (Rating: 4.6/5)	Spring 2019
• Business Analytics (Rating: 4.4/5, 4.7/5)	Spring 2018
$\bullet$ Competitive Advantage from Operations (Rating: $3.8/5)$	Fall 2017
$\bullet$ Competitive Advantage from Operations (Rating: 4/5)	Spring 2017
• Competitive Advantage from Operations (Rating: 4.6/5)	Fall 2016

#### **Business Honors Thesis Advisor**

• Ziheng Wang (2020), Yiyi Zhang (2018), Yujia Ni (2018).

## Kwai

# **Internal Instructor**

Data Driven Optimization
 Operations Analytics
 05/2020
 01-05/2019

#### Washington University in St. Louis, Olin Business School

# Teaching Assistant

• Operations Management; Advanced Operations Strategy; Market Competition and Value Appropriation; Operations Planning and Control.

## Professional Services

#### Journal Referee

Management Science, Operations Research, Manufacturing & Service Operations Management, Marketing Science, Production and Operations Management, Transportation Research: Part B, Naval Research Logistics, European Journal of Operations Research, Omega, Journal of Management Science and Engineering, Applied Mathematical Modeling, Operational Research: An International Journal.

#### Competition Judge

MSOM Student Paper Competition (2020, 2019, 2018, 2017).

POM College of Supply Chain Management Student Paper Competition (2020).

# Conference Committee and Session Chair

#### Session Chair:

• INFORMS 2020, INFORMS 2018, POMS 2018, POMS-HK Conference 2018, POMS-HK Conference 2017, CSAMSE Conference 2016.

Sponsorships and Exhibits Committee member:

• POMS Annual Meeting 2016.

# Professional Organization Membership

INFORMS, MSOM, RMP, APS, POMS.

# **Internal Services**

NYU Shanghai Candidate Weekend instructor.	03/2018
NYU Shanghai Business Honors program thesis advisor.	09/2017-
NYU Shanghai Operations Management Reading Group co-organizer.	03/2017-
NYU Shanghai Housing Subcommittee member.	11/2016 - 05/2019
NYU Shanghai Business Research Seminar coordinator.	09/2016 - 08/2017
NYU Shanghai Business Honors Program guest lecturer.	10/2016-
Olin Busines School Operations Management PhD Seminar coordinator.	01/2013-12/2013

CONSULTING EXPERIENCES

# Cardinal Operations

Parttime Scientist 09/2017-08/2018

# Boeing Center for Supply Chain Innovation, Washington University in St. Louis

Parttime consultant. 10/2013-06/2015

PERSONAL Chinese citizen, Christian, married with one child.